

ICI Americas Inc.

Law Department
General Section

January 29, 1988

SENT VIA FEDERAL EXPRESS

Ms. Susan Swales
U.S. Environmental Protection Agency
230 S. Dearborn
Chicago. IL 60604


Gary Ford, Stauffer Chemical Company Counsel, in his letter to you of January 14, 1988 advised that further investigation regarding TAC involvement with the above site would be undertaken and a supplemental response made by January 25, 1988. As discussed with Mr. Michael Berman on January 25 and 27, Mr. Ford is no longer with Stauffer Chemical and, having just become involved with this matter, I asked if we could supplement the January 14 response on this date. Mr. Berman kindly agreed.

Further investigation has shown that TAC did own a parcel of land in Ashtabula, Ohio. The land, totalling 34.251 acres, consists of two plots - one of 33.91 acres purchased in October, 1956 (recorded January 2, 1957) and one of 0.341 acres purchased in October, 1957. Copies of these deeds are attached. This land was in turn conveyed to Mallory-Sharon Metals Corporation on July 29, 1958 pursuant to a lease with an option to purchase dated as of March 1, 1958 between TAC and National Distillers and Chemical Corporation. A copy of such lease is also attached.

To the best of our knowledge, and based on inquiries of TAC employees, during its short period of ownership, TAC constructed a titanium tetrachloride plant on the above-described land; however, TAC never operated such plant. Upon conveyance of the land to Mallory-Sharon Metals corporation on July 29, 1958 the plant was also transferred.

Based on the above, we do not believe Stauffer Chemical Company is a potentially responsible party as alleged in your November 6, 1987 letter. Stauffer owned the land and plant for but a short period of time and did not operate the facility during the plant's operation when any pollution may have occurred. As such we request that Stauffer be removed from any potentially responsible party list maintained by the Agency.

Very truly yours,


Samuel E. Malovrh
Environmental Attorney

012988SMH103

Wilmington, Delaware 19897 Phone (302) 575-3000

X 142700

WARRANTY DEED

Rev. \$50.20 FROM

Harry A. Bachmeister

Margaret R. Bachmeister

TO

Stauffer Chemical Co., a
corporation

RECEIVED FOR RECORD

Dec 28 19 56

at 3:28 o'clock P.M.

Recorded Jan 2 19 57

in Ashtabula County Records

Volume 545, Page 391

A.H. Fortune

Fee \$ 1.40

RECORDER

TRANSFERRED

Auditor, Ashtabula County, Ohio

DEC 28 1956

Harry A. Bachmeister

THE GIBB LUMBER CO., CLEVELAND

VINCENT L. FOX

BOOK 545 PAGE 391

Know all Men by these Presents, That I, Harry A. Bachmeister, married

_____ the Grantor _____

for the consideration of Ten Dollars and Other Valuable Considerations _____ Dollars,
 (\$ 10.00 etc.) received to our full satisfaction of Stauffer Chemical Co., a corporation,
380 Madison Avenue, New York 17, N. Y..

_____, the Grantee do give, grant, bargain,
 sell and convey unto the said Grantee, its successors and assigns, the following described premises, sit-
 uated in the Township _____ of Ashtabula _____, County of Ashtabula _____
 and State of Ohio:

Known as being part of Lot Number Two (2) in the Holmes Tract in said Township, and bounded and described as follows: Commencing in the center of State Road at the intersection of the Middle Road, so-called; thence east along the center of the Middle Road to the New York Central Railroad; thence north, on the west line of the lands of the New York Central Railroad Company to lands now or formerly owned by J. H. Liebman; thence west, on the south line of said Liebman land, to the center of State Road; thence south along the center of State Road to the place of beginning, and containing approximately 33.91 acres of land, but excepting therefrom lands conveyed by deed recorded in Volume 376, Page 467, Ashtabula County Records of Deeds.

And being last conveyed by deed from Eva Magee (widow) to Harry A. Bachmeister, dated February 24, 1953 recorded in Volume 488, Page 533.



be the same more or less, but subject to all legal highways.

TO HAVE AND TO HOLD the above granted and bargained premises, with the appurtenances thereof, unto the said Grantee, its successors and assigns forever. And I, the said Grantor, do for myself and my heirs, executors and administrators, covenant with the said Grantee, its successors and assigns, that at and until the encasing of these presents, I was well seized of the above described premises, as a good and indefeasible estate in FEE SIMPLE, and have good right to bargain and sell the same in manner and form as above written, and that the same are free from all incumbrances whatsoever, except taxes both regular and special, if any, to be pro-rated between grantor and grantee as of date of transfer of deed, and except easements, if any, and except restrictions and zoning ordinances which may have been imposed thereon, if any,

and that I will WARRANT AND DEFEND said premises, with the appurtenances thereunto belonging, to the said Grantee, its successors and assigns, against all lawful claims and demands whatsoever, except as above stated.

And for valuable consideration I, Margaret R. Hachmeister, wife of Harry A. Hachmeister,

do hereby remise, release and forever quit-claim unto the said Grantee, its successors and assigns, all my right and expectancy of dower in the above described premises.

In Witness Whereof, we have hereunto set our hand 5, the 29th day of October, in the year of our Lord one thousand nine hundred and Fifty-Six.

Signed and acknowledged in the presence of

Gertrude L. Broncham
William M. Hachmeister

Harry A. Hachmeister
(Harry A. Hachmeister)

Margaret R. Hachmeister
(Margaret R. Hachmeister)

PENNSYLVANIA
STATE OF OHIO

Allegheny County,

On this 29th day of October, 1956, before me,

as Notary Public, Gertrude L. Broncham

~~appeared to me, personally, and acknowledged to me that they were the above named Harry A. Hachmeister and Margaret R. Hachmeister, husband and wife, and acknowledged the foregoing deed to be their act and deed and desired the same to be recorded as such.~~

Witness my hand and seal the day and year aforesaid.

~~who acknowledged to me that they were the above named Harry A. Hachmeister and Margaret R. Hachmeister, husband and wife, and acknowledged the foregoing deed to be their act and deed and desired the same to be recorded as such.~~

~~In testimony whereof, I have hereunto set my hand and seal this 29th day of October, 1956.~~

~~Attest my hand and seal this 29th day of October, 1956.~~

~~Notary Public~~

~~Gertrude L. Broncham~~

~~Notary Public~~

My commission expires 3/10/59

THIS IS
PREPARED BY
J. W. SIMMONS
Attorney At Law
GENEVA, OHIO

Gertrude L. Broncham, Notary Public
Pittsburgh, Allegheny County, Pa.
My Commission Expires
March 10, 1959

Know all Men by these Presents:

That The State Metals & Steel Company, Inc.,
 a Corporation incorporated under the laws of the State of Ohio the Grantor,
 who claim 8 title by or through instrument 550, Page 20, County
 Recorder's Office, for the consideration of Ten and 00/100 - - - - - Dollars
 (\$ 10.00) received to its full satisfaction of
Stauffer Chemical Company, a Delaware Corporation, the Grantee,
 whose TAX MAILING ADDRESS will be 380 Madison Ave., New York, N. Y.

do give, grant, bargain, sell and convey unto the said Grantee, its successors
 and assigns, the fol-
 lowing described premises situated in Township of Ashtabula
 County of Ashtabula and State of Ohio:

Being known as part of the Holmes Tract in the Township of Ashtabula,
 County of Ashtabula and State of Ohio, and being further described as
 follows:

Commencing at an iron pin in the westerly line of the right of way of
 the New York Central Railroad, said pin being 308.24 feet north of
 the center line of Middle Road as measured along the said westerly
 line of the right of way of the New York Central Railroad; thence
 running N. 0° 18' 15" W. along said right of way, 111.76 feet to a
 concrete monument; thence running S. 89° 27' W., along a southerly
 line of lands of the New York Central Railroad, 15 feet to a concrete
 monument; thence running S. 11° 40' 45" W. a distance of 409.28 feet
 to an iron pin in the northerly line of Middle Road; thence in the
 same course 20.46 feet to a point in the center line of said Middle
 Road; thence running N. 89° 27' E. along the center line of Middle
 Road, 12.76 feet to a point; thence running N. 25° 25' 45" E., 22.25
 feet to an iron pin in the northerly line of Middle Road; thence in
 the same course, 102.75 feet to an iron pin; thence running N. 14°
 22' 45" E. 100 feet to an iron pin; thence running N. 6° 30' 45" E.
 100 feet to the place of beginning, and containing 14,844.18 square
 feet or 0.341 acre of land, be the same more or less but subject to
 legal highways.

The bearings used in the foregoing are to show correct angular rela-
 tionship between lines only, and are therefore not necessarily true
 azimuth nor are they meant to coincide with any previous description
 of adjoining land except in angular relationship only.



7

33-02-102

be the same more or less, but subject to all legal highways. To have and to hold the above granted and bargained premises, with the appurtenances thereunto belonging, unto the said grantee, its successors and assigns forever. And the said grantor does for itself and its successors and assigns covenant with said grantee, its successors and assigns, that at and until the enclosing of these presents it is well seized of the above described premises as a good and indefeasible estate in fee simple, and has good right to bargain and sell the same in manner and form as above written; that the same are free and clear from all incumbrances whatsoever, except current taxes and assessments, if any, which shall be prorated between the Grantor and the Grantee, and which the Grantee shall hereafter pay,

and that it will warrant and defend said premises, with the appurtenances thereunto belonging, unto the said grantee, its successors and assigns, forever, against all lawful claims and demands whatsoever.

In witness whereof said corporation sets its hand and corporate seal,
by Joseph Kline, its President
and Maurice Kline, its Secretary
this 15th day of October A. D. 1957.

The State Metals & Steel Company, Inc.

Signed and acknowledged in the presence of

Marion E. Dupont
Alex Magarakan

By Joseph Kline
President
Maurice Kline
Secretary

THE STATE OF OHIO
Stark County

Before me, a Notary Public in and for said County, personally appeared the above named

The State Metals & Steel Company, Inc.

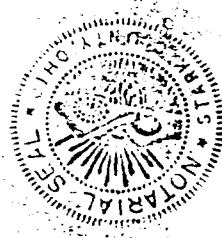
by Joseph Kline, its President
and Maurice Kline, its Secretary
who acknowledged that they did sign the foregoing instrument and that the same is the free act and deed of said corporation and the free act and deed of each of them personally and as such officers.

In testimony whereof I have hereunto set my hand and official seal, at
Canton, this 15th day of October 1957

Earleen E. Brady Notary Public

This instrument was prepared by
SAMUEL KRUGLIAK
918 Reakert Bldg.
Canton 2, Ohio

EARLEEN E. BRADY
Notary Public, Stark County, Ohio
My Commission Expires Aug. 19 1960



WARRANTY DEED

Pay 19.80 FROM

The State Metals & Steel
Company, Inc.

TO
Stuffer Chemical Company,
Belaware Corporation

RECEIVED FOR RECORD
Oct 24, 1957

at 10:45 o'clock A.M.

Recorded Oct 29, 1957

in Ashtabula County Records

Volume 558, Page 265

A. H. Fortane, RECORDER

Fee \$1.00 ENTERED FOR TRANSFER

TRANSFERRED
Auditor, Ashtabula County, Ohio
OCT 28 1957
Harry W. Phelps

VINCENT L. FUNK

THIS AGREEMENT dated as of the 1st day of March, 1958 between STAUFFER CHEMICAL COMPANY, a Delaware corporation with offices at 380 Madison Avenue, New York, New York (hereinafter called "Stauffer"), and NATIONAL DISTILLERS AND CHEMICAL CORPORATION, a Virginia corporation with offices at 99 Park Avenue, New York, New York (hereinafter called "National"),

W I T N E S S E T H:

WHEREAS, Stauffer has constructed a plant designed for the production of titanium tetrachloride at Ashtabula, Ohio which is not yet in operation; and

WHEREAS, National desires to lease said plant and subject to start up experience has made known its desire to purchase the plant; and

WHEREAS, Stauffer is willing to lease said plant to National and to grant to National an option to purchase the plant, all subject to the provisions hereinafter set forth;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and conditions herein contained, it is agreed as follows:

1. Stauffer does hereby demise and let unto National, all those certain lots or parcels of land with the buildings and improvements thereon erected and the appurtenances thereunto located in the vicinity of the City of Ashtabula, in the County of Ashtabula and State of Ohio, (bounded and described in Schedule A attached hereto), and does further let unto National the machinery,

equipment and other personal property installed therein and used in connection therewith (listed and described in Schedule B attached hereto) (said property described in Schedules A and B being hereinafter collectively referred to as the "Plant"),

TO HAVE AND TO HOLD the Plant unto National for and during the full term of five (5) months commencing at 12:00 o'clock Noon on the 1st day of March, 1958 and ending at 12:00 o'clock Noon on the 31st day of July, 1958, except as otherwise provided in Paragraph 4 below.

2. For and in consideration of the leasing aforesaid, National hereby covenants and agrees to and with Stauffer to pay Stauffer as rental the sum of \$50,000 per month payable in advance on the first day of each month during the term hereof. X

3. National will use its best efforts to start up the Plant expeditiously and to satisfy itself that the Plant is capable of producing titanium tetrachloride in quantities, at costs and meeting specifications as set forth in Schedule C. Such start up shall be under the sole control and direction of National, shall be conducted with National's own personnel, and at National's own expense, but Stauffer agrees to furnish National with such technical assistance and advice as National may from time to time reasonably require and request, and National agrees to pay Stauffer therefor the direct salaries of Stauffer's personnel reasonably required to render such technical assistance and advice together with a sum of money to cover Stauffer's overhead equal to 75% of such direct salaries, plus all other out of pocket expenses incurred by Stauffer in connection with rendering X

such technical assistance and advice.

4. This lease shall terminate either (a) upon the expiration of the term hereof as provided in Paragraph 1 above, or (b) on any date prior to such expiration at National's sole option upon ten (10) days' notice in writing to Stauffer. Upon termination of the lease National shall surrender the Plant back to Stauffer in the same condition in which it was received, subject only to start up adjustments and to normal wear and tear, and Stauffer shall either (a) reimburse National for its costs not exceeding \$150,000, incurred in the start-up of the Plant, plus the costs of capital additions and replacement permitted under Paragraph 7, or (b) give National full credit for a similar amount against the payments to be made by National to Stauffer pursuant to a certain contract dated May 1, 1957 between National and Stauffer for the sale and purchase of titanium tetrachloride (the "Titanium Tetrachloride Contract") until such credit is exhausted. In such event the parties agree that the payments due by National to Stauffer pursuant to the Titanium Tetrachloride Contract shall be considered due as of the first day of the month following the month in which the Plant is capable of producing and delivering titanium tetrachloride in accordance with the terms of the Titanium Tetrachloride Contract, whether such date shall have occurred during the term of this lease or after the termination of this lease. National shall be given full credit for rental paid hereunder against the monthly payments due to Stauffer under the Titanium Tetrachloride Contract. In the event that at the termination of this lease the Plant is not capable of producing and

delivering titanium tetrachloride in accordance with the terms of the Titanium Tetrachloride Contract, Stauffer shall use its best efforts to cure the situation at its own expense and shall have up to six (6) months in which to do so, and during so much of said six (6) months period as is required by Stauffer to cure the situation, National agrees to waive all defaults by Stauffer under the Titanium Tetrachloride Contract. The parties agree that the effective date of the Titanium Tetrachloride Contract shall be the first day of the month following the month in which the Plant is capable of making deliveries thereunder, and the termination date shall be extended by the number of months by which the original effective date of March 1, 1958 is delayed.

5. Stauffer shall be under no obligation to furnish services of any nature whatsoever to the demised premises and/or to National, except technical services required in the start up of the Plant as set forth above.

6. National is hereby granted an option to purchase the Plant for the sum of \$ 4,945,000.00. Such option is exercisable on July 31, 1958 only, by giving notice in writing thereof to Stauffer in which notice National shall designate the closing date which shall not be later than August 20, 1958. The option price shall be increased by the sum of \$ 400.00 per day for each day which shall elapse between July 31, 1958 and the day of the actual closing. National shall receive full credit against the option price for all rentals paid hereunder. National shall

be entitled to remain in possession of the Plant until the closing day.

7. During the term of this lease, National shall be entitled to make such capital additions and replacements to the Plant as are reasonably necessary for start-up of the Plant, but shall not make any capital addition or replacement costing more than \$5,000 nor total capital additions and replacements costing more than \$150,000 without the advance approval of Stauffer. Approval of a particular capital addition or replacement in excess of \$5,000 shall not in itself operate to increase said limitation on total capital additions and replacements.

8. In the event National elects to exercise its option to purchase the Plant, Stauffer agrees that on the closing date Stauffer will sell, transfer and deliver to National all of the real property described in Schedule A with the appurtenances thereunto, and the personal property described in Schedule B, and National shall pay to Stauffer the consideration therefor, and the closing shall proceed in the following manner:

(a) Stauffer will deliver to National such bargain and sale deeds as in the opinion of National's counsel shall be effective to vest in National good and marketable title to the real property described in Schedule A hereto free from all liens and subject only to such covenants, restrictions, easements or other similar encumbrances of record, if any, as shall not prohibit or restrict the maintenance of the buildings erected thereon or the use

thereof as a titanium tetrachloride plant and to any state of facts a physical inspection of the premises may disclose.

(b) Stauffer will deliver to National such bills of sale with covenants of warranty, endorsements, assignments and other good and sufficient instruments of transfer and covenants as in the opinion of National's counsel shall be effective to vest in National good and marketable title to the personal property set forth in Schedule B hereto free from all liens.

(c) National will deliver to Stauffer a certified or bank cashiers check or checks on New York Clearing House funds for a total of the option price increased as in Paragraph 6 provided.

(d) National will pay all sales, transfer and documentary taxes, if any, payable in connection with the sale, conveyances, assignments, transfers and deliveries to be made to National hereunder.

(e) Any unpaid assessments shall be assumed by National.

(f) From time to time at National's request (whether at or after the closing and without further consideration) Stauffer, at National's expense, will execute and deliver such further instruments of conveyance and transfer and take such other action as National may request more effectively to convey and transfer to National any of the property, real or personal, to be transferred hereunder.

9. In the event that Stauffer shall be unable to convey

title to the Plant in accordance with the terms and conditions set forth herein, National shall, at its election, have the right to accept such title as Stauffer is able to convey, or after affording Stauffer a reasonable adjournment of the closing date to enable it to cure or correct any defects or objections, and such defects or objections not having been cured or corrected, National may rescind this agreement by written notice to Stauffer, and upon such rescission Stauffer shall either (a) reimburse National for National's costs incurred in the start up of the Plant, or (b) give National full credit for a similar amount against the payments to be made by National to Stauffer pursuant to the Titanium Tetrachloride Contract until such credit is exhausted, all in the same manner as set forth in Paragraph 4 above, and thereupon this agreement shall be null and void and of no further force and effect. In the event of a rescission of the agreement by National pursuant to the provisions of this paragraph, the parties agree that the payments due by National to Stauffer pursuant to the Titanium Tetrachloride Contract shall be determined in the same manner as set forth in Paragraph 4 above.

10. Stauffer represents and warrants as follows:

(a) The execution and delivery of this lease to National and the purchase option included herein have been duly authorized by Stauffer's board of directors, and Stauffer will deliver to National at National's request true and complete copies of the minutes of the meeting of the board of directors at which such authority was granted, such copies having been certified by Stauffer's Secretary, and no further corporate action is necessary.

(b) Stauffer has good and marketable title to all of the property, real and personal, to be sold hereunder, subject to no mortgage, pledge, lien or conditional sale agreement.

11. If pursuant to any of the provisions contained in this agreement Stauffer must either reimburse National or give National credit for National's start up costs of the Plant or other charges or expense, National agrees to furnish Stauffer with a detailed statement of such start up costs and other charges or expenses certified by an officer of National.

12. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered or mailed by prepaid registered mail return receipt requested (a) if to Stauffer at 380 Madison Avenue, New York, New York, or (b) if to National at 99 Park Avenue, New York, New York. Either party may at any time designate another address by giving notice thereof in writing.

13. This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors. Neither party shall have the right to assign this agreement without the written consent of the other, except that National may assign this agreement without the consent of Stauffer to Mallory-Sharon Metals Corporation or to any controlled subsidiary of National.

IN WITNESS WHEREOF, the parties hereto have caused these

presents to be executed by their duly authorized officers and
their corporate seals to be hereunto affixed, the day and year
first above written.

STAUFFER CHEMICAL COMPANY

By

A. E. Allen
Vice President

ATTEST:

A. Macdonald
Assistant Secretary

NATIONAL DISTILLERS AND CHEMICAL
CORPORATION

By

R. J. Jolson

ATTEST:

Paul Carson
Secretary

SCHEDULE A

Those two parcels of land lying, being and situate in the Township of Ashtabula, County of Ashtabula and State of Ohio, bounded and described as follows:

Parcel I

Commencing in the center of State Road at the intersection of the Middle Road, so-called; thence east along the center of the Middle Road to the New York Central Railroad; thence north, on the west line of the lands of the New York Central Railroad Company to lands now or formerly owned by J. H. Liebman; thence west, on the south line of said Liebman land, to the center of State Road; thence south along the center of State Road to the place of beginning, and containing approximately 33.91 acres of land, but excepting therefrom lands conveyed by deed recorded in Volume 376, Page 467, Ashtabula County Records of Deeds.

Being also known as part of Lot Number Two (2) in the Holmes Tract in said Township.

Parcel II

Commencing at an iron pin in the westerly line of the right-of-way of the New York Central Railroad, said pin being 308.24' north of the center line of Middle Road as measured along the said westerly line of the right-of-way of the New York Central Railroad; thence running N.0°18'15"W. along said right-of-way, 111.76' to a concrete monument; thence running S.89°27'W., along a southerly line of land of the New York Central Railroad, 15' to a concrete monument; thence running S.11°40'45"W. a distance of 409.28' to an iron pin in the northerly line of Middle Road; thence in the same course 20.46' to a point in the center line of said Middle Road; thence running N.89°27'E. along the center line of Middle Road, 12.76' to a point; thence running N.25°25'45"E., 22.25' to an iron pin in the northerly line of Middle Road; thence in the same course, 102.75' to an iron pin; thence running N.14°22'45"E. 100' to an iron pin; thence running N.6°30'45"E. 100' to the place of beginning, and containing 14,844.18 square feet or 0.341 acre of land, be the same more or less but subject to legal highways.

Being also known as part of the Holmes Tract in said Township.

The bearings used in the foregoing are to show correct angular relationship between lines only, and are therefore not necessarily true azimuth nor are they meant to coincide with any previous description of adjoining land except in angular relationship only.

Parcels I and II above are meant to describe all of the real property owned by Stauffer at Ashtabula, Ohio.

SCHEDULE B

Schedule B is intended to include all furniture, fixtures, vehicles, tools, spare parts, machinery, equipment and apparatus located in, on or about the Plant and used in connection with the operation of the Plant, including but not necessarily limited to, the items shown on the Vessel Equipment List (7 pages), the Pump Equipment List (2 pages), the Motors Equipment List (5 pages), the Exchangers Equipment List (2 pages) and the Miscellaneous Equipment List (5 pages) attached hereto.

TAG #	P.O. #	SERVICE	H.P.	ELECT. RATING	RPM	TYPE	AREA
② M-BL1	2016-5	MOTOR STILL-UP FLOW	50		1800		
④ M-BL2	2016-6	" " " "	50		1800		
M-BL3	2092	" - BOX CAR VENTING	1/2	110 VOLT			
M-BL4	2092	" " " "	1/2	110 VOLT			
M-BL6	2016-20	MOTOR CONTROL ROOM PRESSURE	2				
M-BL7	2179	" VENTILATING FAN BOILER SECTION	3/4				
M-BL8	2179	" REFRIG. SECTION	3/4				
M-BL9	2016-20	" " " "	1				
M-BL12	2766	" VENT FAN SHOPS	1				
④ M-BL10	2016-11	" - VENTILATION COMP.	30		1800		
M-BL11	2179	" VENT FAN - UNLOADING	2		1440		CAR UNLOADING
M-BL13	2766	" VENT FAN - SHOPS	1				
M-BL15	2016-4	" AREA VENT BLOWER	60		1800		CL2 REFIN
M-BL15	2016-12	" - PEASE ANTHRA BLOWER	15		3600		
M-BL14	2800	" - BLOWER PAINT SHOP	1/8	110-220	960		
② M-BL60	2016-1	MOTOR COMPRESSOR	45		1800		UTIL.
M-BL61	"	" " " "	45		1800		
M-BL62	2019	" " " "	"		900		
M-BL63	2019	" " " "	"		900		
M-BL-FU60	2020	" - BLOWER PAINT SHOP	5				
④ M-BL-FU61	2021	" " " "	10				
M-BC-FU61	2021	" BURNER CUPS FU 61	1/3				

JOB NO.				SHEET 2 OF 5 SHEETS
4-1				
ISSUE	DRAWN	CHECKED	DATE	STAUFFER CHEMICAL CO., INC. ENGINEERING DEPARTMENT CHAUNCEY N. Y.
5	LAN		4-25-57	
6	LAN		5-6-57	STANDARD DETAIL NO. STD. 5-30
7	AM		7-13-57	
4	LAN		4-8-57	TITLE EQUIPMENT LIST - MOTORS

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TAG #	PO #	SERVICE	H.P.	ELECT. RATING	RPM	TYPE	AREA
M-CP-1	2016-8	MOTOR BELT FEED TO CS-1	2		1160		YARD
		BELT FEED	7/2		1750		"
					1750		"
					1750		"
	2016-8				1750		YARD
	2015-8				1750		"
M-CP-2	2016-21	MOTOR SCREW FEED TO R-20	3	3/60/220-440	1800	with fan	REACTOR
M-CS-1	2016-21	SCREW FEED TO R-21	3		1800		"
M-CS-2	2016-21	SCREW FEED TO R-22	3		1800		"
MCP-1	2180	MOTOR CAR PULLER	10	3/60/440			
M-K-2	2016-3	MOTOR - SLUDGE DRYER			1200		EQUIP
M-K-1	"	" " "			1200		"
M-K-4	"	" " "			1200		"
-K-2	2017	KW-HR-CORNER-HIP DRYER 20.2					UTILITY
		OXYGEN EQUIP		25 K.V.A.			

JOB NO.				SHEET 3 OF 5 SHEETS	
4-1					
ISSUE	DRAWN	CHECKED	DATE	STAUFFER CHEMICAL CO., INC. ENGINEERING DEPARTMENT CHAUNCEY, N. Y. STANDARD DETAIL NO. STD. 5-3.0 TITLE EQUIPMENT LIST - MOTORS	
	LAN		4-5-7		
6	LAN		5-6-57		
7	ADN		9-3-57		
4	LAN		1-5-57		

TAG #	P.O. #	SERVICE	H.P.	ELECT. RATING	RPM	TYPE	AREA
M-P1	2040	MOTOR - SUMP PUMP	1				WARD
M-P4	2016-13	MOTOR - FINISHED T.C.L.	20		1800		
M-P5	2016-13	" " "	20		1800		
M-P20	2016-13	MOTOR - PUMP & CRUDE RECEIV. T-20	25		1800		REACTION
M-P21	2016-13	" " T-21	25		1800		"
M-P23		DELETED					
M-P24		"					
M-P26	2016-13	MOTOR - PUMP & CRUDE TANK T-26	7 1/2		1150		"
M-P27	2016-13	" " T-27	7 1/2		1150		"
M-P28	2016-13	" PUMP & CRUDE TANK T-27	10		1150		"
M-P40	2016-13	MOTOR - PUMP T-40	10		1150		
M-P41	2016-13	MOTOR - PUMP & CHECK T-41	10		1150		EVAP.

JOB NO.
4-1

SHEET 4 OF 5 SHEETS

ISSUE	DRAWN	CHECKED	DATE
5	LAN		6-8-57
6	LAN		4-25-57
7	LAN		5-6-57
8	AM		9-13-57

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
CHAUNCEY, N. Y.

STANDARD DETAIL NO. STD. 5-3.0
TITLE EQUIPMENT LIST - MOTORS

TAG #	PO #	SERVICE	HP	FEET	KWH	REMARKS
M-P50	2016-13	MOTOR - PUMP @ TAN	20			
M-P51	2016-13	" PUMP @ TAN	15			
M-P52	2016-13	" PUMP @ TAN	15			
M-P52B	2016-13	" SCRUBBER	15			
M-P60	2016-10	MOTOR - PUMP @ BOILER FEED	25			
M-P62A	102021	" PUMP @ TREATMENT	1/4			
M-P63	2016-2	" PUMP @ CRINE (-4°F TO 2°F)	40			
M-P63A	"	"	40			
M-P65A	2016-14	" PUMP @ PROCLAR	15			
M-P65B	2016-14	" PUMP @ PROCLAR	15			
M-P67	2020	" PUMP @ OIL HEATER SET	1			
M-P68	2020	"	1			
MP 66	2171	" PROCLAR FILL PUMP	3/4	3/10/2020		
SPARE MOTORS						

M-RF44	2016-18	MOTOR - PUMP @ FEA K-1	1/2			
M-RF43	2016-18	"	1/2			
M-RF44	2016-18	"	1/2			

JOB NO.			
4-1			
ISSUE	DRAWN	CHECKED	DATE
5	LAN		4-25-57
6	LAN		5-6-57
7	AM		9-13-57
8	LAN		4-4-57

SHEET 5 OF 5

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
CHANCEY, N. Y.

STANDARD DETAIL NO. **STD 5-30**

TITLE **EQUIPMENT**

MEASURED
 1/2"

TANK DIALS ROS SERVICE AREA

1-1 2085 AGITATOR IN LINE YARD
1-2 2085 " " "

1-3 2085 AGITATOR IN X-20 7 1/2 Rehen.
1-4 2085 " " 7 1/2 "
1-5 2085 " " 7 1/2 "
1-6 2085 " " 7 1/2 "
1-7 2085 " " 7 1/2 "
1-8 2085 " " 7 1/2 "
1-9 2085 " " 7 1/2 "
1-10 2085 " " 7 1/2 "
1-11 2085 " " 7 1/2 "
1-12 2085 " " 7 1/2 "
1-13 2085 " " 7 1/2 "
1-14 2085 " " 7 1/2 "
1-15 2085 " " 7 1/2 "
1-16 2085 " " 7 1/2 "
1-17 2085 " " 7 1/2 "
1-18 2085 " " 7 1/2 "
1-19 2085 " " 7 1/2 "
1-20 2085 " " 7 1/2 "
1-21 2085 " " 7 1/2 "
1-22 2085 " " 7 1/2 "
1-23 2085 " " 7 1/2 "
1-24 2085 " " 7 1/2 "
1-25 2085 " " 7 1/2 "

1-26 2085 AGITATOR IN F-10 7 1/2 REVAR
1-27 2085 " " 7 1/2 "

1-28 2085 AGITATOR IN F-10 7 1/2 REVAR
1-29 2085 " " 7 1/2 "

1-30 2085 AGITATOR IN F-10 7 1/2 REVAR
1-31 2085 " " 7 1/2 "

1-32 2085 AGITATOR IN F-10 7 1/2 REVAR
1-33 2085 " " 7 1/2 "

1-34 2085 AGITATOR IN F-10 7 1/2 REVAR
1-35 2085 " " 7 1/2 "

NO. 105 NO. 12				NO. 105 SHEETS			
4-1							
5-1	AM		9-13-57	STAUFFER CHEMICAL CO., INC.			
2-1	RE		1-10-57	STANDARD DETAIL NO. STD. 5-5-0			
3-1	RR		9-10-57	TITLE EQUIPMENT LIST MISCELLANEOUS			
4-1	LAN		5-10-57				

TAG	DATE	DESCRIPTION	REMARKS
BL-1	2039	BLOWER - START UP	305 CFM @ 10 PSI
BL-2	"	"	305 CFM @ 10 PSI
BL-3	2092	" BOILER VENTING	1500 CFM
BL-4	2092	" " "	1500 CFM
BL-6	2111	" COOLING ROOM PRESS. FAN	
BL-7	2179	" VENTILATING FAN BOILER SECT.	1750
BL-8	2179	" REFRIG. SECT.	
BL-9	2711	" " "	
BL-10	2080	" UTILITY AIR	305 SHOP - WRM
BL-11	2179	" VENT FAN UNLOADING	
BL-50	2031	BLOWER - AREA VENT	60
BL-50S	2031	5-TARE BLOWER	
BL-51	2104	BLOWER - PEASE ANTIWIND	
BL-60	2011	COMPRESSOR - AIR	40 UTILITY
BL-61	2011	" " "	40
BL-62	2014	" REFRIG.	175
BL-63	2014	" " "	175
BL-12	2766	" WELDING FONE FAN SHOP	
BL-13	2766	" " "	
BL-14	2800	" PAINT SHOP	1/6-110

JCB NO 4-1				SHEET 2 OF 5 SHEETS	
ISSUE	DRAWN	CHECKED	DATE	STAUFFER CHEMICAL CO., INC. ENGINEERING DEPARTMENT CHAUNCEY, N. Y. STANDARD DETAIL NO. STD 5-50 TITLE EQUIPMENT LIST-MISCELLANEOUS	
5	LAN		5-7-57		
6	AM		9-13-57		
3	R.R.		3-6-57		
4	R.R.		3-20-57		

100-100000-1000
 100-100000-1000
 100-100000-1000

TAG	Drawn No.	SERVICE	DATE
CB-1	2038	BELT FEED CASE	7-11-57
CB-2	"	"	"
CB-3	"	BELT DISCHARGE MACHINES	"
CB-4	"	BELT PHOTO METER	"
CE-1	2038	BULLET METER	7-11-57
CE-2	"	"	"
CE-3	2038	BULLET METER	7-11-57
CE-4	"	"	"
CE-5	2038	BULLET METER	7-11-57
CE-6	"	"	"
CE-7	2038	BULLET METER	7-11-57
CE-8	"	"	"
CE-9	2038	BULLET METER	7-11-57
CE-10	"	"	"
CE-11	2038	BULLET METER	7-11-57
CE-12	"	"	"
CE-13	2038	BULLET METER	7-11-57
CE-14	"	"	"
CE-15	2038	BULLET METER	7-11-57
CE-16	"	"	"
CE-17	2038	BULLET METER	7-11-57
CE-18	"	"	"
CE-19	2038	BULLET METER	7-11-57
CE-20	"	"	"
CE-21	2038	BULLET METER	7-11-57
CE-22	"	"	"
CE-23	2038	BULLET METER	7-11-57
CE-24	"	"	"
CE-25	2038	BULLET METER	7-11-57
CE-26	"	"	"
CE-27	2038	BULLET METER	7-11-57
CE-28	"	"	"
CE-29	2038	BULLET METER	7-11-57
CE-30	"	"	"
CE-31	2038	BULLET METER	7-11-57
CE-32	"	"	"
CE-33	2038	BULLET METER	7-11-57
CE-34	"	"	"
CE-35	2038	BULLET METER	7-11-57
CE-36	"	"	"
CE-37	2038	BULLET METER	7-11-57
CE-38	"	"	"
CE-39	2038	BULLET METER	7-11-57
CE-40	"	"	"
CE-41	2038	BULLET METER	7-11-57
CE-42	"	"	"
CE-43	2038	BULLET METER	7-11-57
CE-44	"	"	"
CE-45	2038	BULLET METER	7-11-57
CE-46	"	"	"
CE-47	2038	BULLET METER	7-11-57
CE-48	"	"	"
CE-49	2038	BULLET METER	7-11-57
CE-50	"	"	"
CE-51	2038	BULLET METER	7-11-57
CE-52	"	"	"
CE-53	2038	BULLET METER	7-11-57
CE-54	"	"	"
CE-55	2038	BULLET METER	7-11-57
CE-56	"	"	"
CE-57	2038	BULLET METER	7-11-57
CE-58	"	"	"
CE-59	2038	BULLET METER	7-11-57
CE-60	"	"	"
CE-61	2038	BULLET METER	7-11-57
CE-62	"	"	"
CE-63	2038	BULLET METER	7-11-57
CE-64	"	"	"
CE-65	2038	BULLET METER	7-11-57
CE-66	"	"	"
CE-67	2038	BULLET METER	7-11-57
CE-68	"	"	"
CE-69	2038	BULLET METER	7-11-57
CE-70	"	"	"
CE-71	2038	BULLET METER	7-11-57
CE-72	"	"	"
CE-73	2038	BULLET METER	7-11-57
CE-74	"	"	"
CE-75	2038	BULLET METER	7-11-57
CE-76	"	"	"
CE-77	2038	BULLET METER	7-11-57
CE-78	"	"	"
CE-79	2038	BULLET METER	7-11-57
CE-80	"	"	"
CE-81	2038	BULLET METER	7-11-57
CE-82	"	"	"
CE-83	2038	BULLET METER	7-11-57
CE-84	"	"	"
CE-85	2038	BULLET METER	7-11-57
CE-86	"	"	"
CE-87	2038	BULLET METER	7-11-57
CE-88	"	"	"
CE-89	2038	BULLET METER	7-11-57
CE-90	"	"	"
CE-91	2038	BULLET METER	7-11-57
CE-92	"	"	"
CE-93	2038	BULLET METER	7-11-57
CE-94	"	"	"
CE-95	2038	BULLET METER	7-11-57
CE-96	"	"	"
CE-97	2038	BULLET METER	7-11-57
CE-98	"	"	"
CE-99	2038	BULLET METER	7-11-57
CE-100	"	"	"

JOB NO. **4-1** SHEET 3 OF 5 SHEETS
 STAUFFER CHEMICAL CO., INC.
 ENGINEERING DEPARTMENT
 CHAUNCEY, N. Y.
 STANDARD DETAIL NO. **STD. 550**
 TITLE **EQUIPMENT LIST - MISCELLANEOUS**

ITEM	DRAWN	CHECKED	DATE
5	LAN		5-8-57
6	AM		9-13-57
7	R.R.		9-6-57
8	R.R.		3-20-57

ET-16	2126	EQ-11	B-20-2A-2B
ET-17	2126	"	B-21-2A-2B
ET-18	2126	"	B-22-2A-2B
ET-19	"	"	C-42-2A-2B
ET-20	"	"	C-43-2A-2B
ET-21	"	"	C-44-2A-2B
ET-22	2126	"	T-42-2A-2B
ET-23	2126	"	T-43-2A-2B
ET-24	2126	"	T-44-2A-2B
ET-25	"	"	LET-10-2A-2B
ET-26	"	"	LET-11-2A-2B
ET-27	"	"	LET-12-2A-2B
ET-28	"	"	LET-13-2A-2B
ET-29	"	"	LET-14-2A-2B
ET-30	"	"	LET-15-2A-2B
ET-31	"	"	LET-16-2A-2B
ET-32	"	"	LET-17-2A-2B
ET-33	"	"	LET-18-2A-2B
ET-34	"	"	LET-19-2A-2B
ET-35	"	"	LET-20-2A-2B

JOB NO.

SHEET 5 OF 5 SHEETS

4-1

STAUFFER CHEMICAL CO. INC.

ENGINEERING DEPARTMENT
MANHATTAN, N. Y.

ISSUE	DRAWN	CHECKED	DATE
1	WLG		12-5-54
2	LHM		5-8-57
3	AM		9-18-57

STANDARD DETAIL NO. **STD. 5-5.0**
 TITLE **EQUIPMENT** **MISCELLANEOUS**

P-1 2040

P-2 2040

P-4 2109

P-5 2109

P-20 2109

P-21 2109

P-205 2109

P-23 2109

P-24 2109

P-26 2109

P-27 2109

P-28 2109

P-40 2109

P-41 2109

P-50 2109

P-51 2109

5 LAR

6 AM

4 RR

DELETED

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SERVICE

514

604PM 12/12/51

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604PM 12/12/51

TAG NO. 2109
PUMP - SEE B&B R

2109

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2109 PUMP - B&B R

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STUFFER CHEMICAL CO. INC.

SHEET 2 OF 2 SHEETS

STANDARD DETAIL NO. STD 5-20

TITLE EQUIPMENT LIST - PUMPS

4	2109	ARC	3-457	5-757
3	ARC	3-457	5-757	
2	ARC	3-457	5-757	
1	ARC	3-457	5-757	

NO.	PO.	SERVICE	BTU	SURFACE	AREA
X-1	2018	VAPORIZER			REACTOR
X-2					
X-3	2018	CL ₂ HTR			II
X-4	2018	CL ₂ HTR			II
X-5					
X-6					
X-7					
X-8					
X-9	2018	COND. REFRIG. COOLER			REACTION
X-10	2018			226'	II
X-11					
X-12	2018	PRIMARY	250000		REACTION
X-13	2018				II
X-14	2018				II
X-15	2018	BRINE - REFRIG. COOLING		165'	II
X-16	2018	II		165'	II
X-17					
X-18					
X-19					
X-20	2018	EVAP. CONDENSER		25'	EVAP
X-21				65'	II
X-22		DRYER		65'	II
X-23				65'	II
X-24				65'	II
X-25	2018	AIR PREHEATER - COMB. AIR			
X-26	2018	PRODUCT COOLER		350'	II
X-27	2018	BRINE - VENT COOLER		400'	II
X-28		EVAP. FEED PREHEATER		TANK PIPE	II
X-29				II	

JOB NO. 4-1

SHEET 1 OF 2 SHEETS

NO.	DATE	CHECKED	DATE
5	L.A.N.		5-2-57
6	A.M.		9-13-57
3	R.R.		3-6-57
4	R.R.		3-20-57

STAUFFER CHEMICAL CO., INC.
 ENGINEERING DEPARTMENT
 CHAUNCEY, N. Y.

STANDARD DETAIL NO. STD. 5-4.0

TITLE EQUIPMENT LIST - EXCHANGERS

TAG NO.	PO. #	SERVICE	BTU	SP. GRAV.	TYPE	AREA
X-50	2048	PRINER AIR COOLER FEED	1000 P			CL2 RECOV
X-51		1ST TET. LEAN TET. FEED	315 P			"
X-52		2ND TET. LEAN TET. FEED	715 P			"
X-53		3RD TET. LEAN TET. FEED	215 P			"
X-54		4TH TET. LEAN TET. FEED	515 P			"
X-55		STRIPPER CONDENSER	200 P			"
X-56		STRIPPER REBOILER	200 P			"
X-57	2044	PROCESS SCRUBBER COOLER	65 P			"
X-58	2044	" " " "	65 P			"
X-60	2011	COMPRESSOR AIR AFTER COOLER				UTILITY
X-61	2014	NH3 CONDENSER				"
X-62	2014	BRINE COOLER				"
X-63	2011	COMPRESSOR AIR AFTER COOLER				"
X-64	2020	OIL HEATER SET				

JOB NO.			
4-1			
ISSUE	DRAWN	CHECKED	DATE
5	LAN		5-7-57
6	AM		9-13-57
3	R.R.		1-5-57
4	R.R.		5-10-57

SHEET 2 OF 2 SHEETS

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
CHAUNCEY, N. Y.

STANDARD DETAIL NO. STD. 5-4.0

TITLE EQUIPMENT LIST - EXCHANGERS

JOB NO.			SERVICE	SIZ	QTY	UNIT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	37	38	39	40	41	42
43	44	45	46	47	48	49
50	51	52	53	54	55	56
57	58	59	60	61	62	63
64	65	66	67	68	69	70
71	72	73	74	75	76	77
78	79	80	81	82	83	84
85	86	87	88	89	90	91
92	93	94	95	96	97	98
99	100	101	102	103	104	105
106	107	108	109	110	111	112
113	114	115	116	117	118	119
120	121	122	123	124	125	126
127	128	129	130	131	132	133
134	135	136	137	138	139	140
141	142	143	144	145	146	147
148	149	150	151	152	153	154
155	156	157	158	159	160	161
162	163	164	165	166	167	168
169	170	171	172	173	174	175
176	177	178	179	180	181	182
183	184	185	186	187	188	189
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SHEET 10 OF 75 SHEETS

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
ORANGE, N.Y.

STANDARD DETAIL NO. STD 5-10

TITLE VESSEL EQUIPMENT LIST

DATE	CHECKED	APPROVED
9-13-57		
1-15-57		
5-2-57		
6-8-57		

C-20 DELETED

C-21

C-40 38A 2097 EMO CA. ONE

C-41

DELETED

DELETED

C-42

C-43

DELETED

DELETED

C-44

C-50

12053

C-51A

605 2083

C-51B

606 2083

C-52

605 2053

C-53

31D 2051

4-1

STAUFEER CHEMICAL CO. INC.

ISSUE

STANDARD DETAIL NO. STD 5000

6

9-13-57

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3-6-57

4

8-10-57

T-1 180 2087 CRUDE RECV. TANK NO. 1
 T-2 180
 T-3 180
 T-4 180
 T-5 180
 T-6 538 2087 LIME STG. TANK NO. 1
 T-7 538 2087

T-20 607 2091 CRUDE RECV. TANK NO. 1
 T-21 607 2091

T-22 DELETED
 T-23

T-26 608 2081 CRUDE STORAGE TANK NO. 1
 T-27 608 2081

T-40 180 2024
 T-41 180 2024

4-1			
ISSUE	DRAWN	CHECKED	DATE
5	LBN		5-8-57
6	AM		9-13-57
3	R.R.		3-6-57
4	R.R.		3-20-57

STAUFFER CHEMICAL CO., INC.
 ENGINEERING DEPARTMENT
 CHANDLER, ILL.

STANDARD DETAIL NO.

TITLE

6

GENERAL MEDICAL CO. INC.

STANDARD DET.

TITLE VESSEL EN-191

- 45
 T-44
 T-45 494

T-50 53A 2021
 T-51 53A 2021

T-60 46
 T-61 113A 2186
 T-62 59 2013
 T-63 13A 2021
 T-64 13A 2021
 T-65 13A 2021
 T-66 113 2021
 T-67 134A 2136
 T-68 33A 2027
 T-69 13A 2131

ISSUE	DRAWN	CHECKED	DATE
1	AM		11-13-57
2	AM		11-13-57
3	AM		11-13-57
4	AM		11-13-57

STANDARD DETAIL NO.
 TITLE

STAUFFER CHEMICAL CO., INC.

TAG # DWG # PO #

DATE

BY

X-S-20 604 2051

SENDER ADDRESS 44-584

RECEIVER

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ANTHONY UNIT

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WB-2 2226

14 N. 81

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WB-3

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WB-4 2220

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WB-20 42C 26 14 N. 81

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WB-22

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STAUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT

CHAMBERS, N. Y.

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5-8-57

STANDARD DETAIL NO.

STD-519

TITLE

ENGINEERING

SCHEDULE C

I Quantities

The Plant is capable of producing titanium tetrachloride of a quality which shall meet the specifications outlined below at the rate of 4,000,000 pounds per month.

II Costs

A. Raw Materials

Rutile - not more than 0.458 pounds of contained TiO_2 per pound of $TiCl_4$.

Chlorine - not more than 0.85 pounds of contained Cl_2 per pound of $TiCl_4$

Coke - not more than 0.14 pounds of calcined petroleum coke per pound of $TiCl_4$.

B. Operating Costs

Plant operating costs other than raw materials, depreciation, real estate taxes, and insurance shall not exceed the sum of \$58,500.00 per month if the Plant is operated at a rate not in excess of 2,000,000 pounds per month and \$85,000.00 per month if the Plant is operated at a rate greater than 2,000,000 pounds per month.

III Specifications

Technical grade $TiCl_4$ produced from Rutile

Color	Yellow to Red
$TiCl_4$	Minimum 98%
$SiCl_4$	Maximum 0.20%
Vanadium	Maximum 0.20%
Non Volatile Residue	Maximum 0.05%
Iron as Fe	Maximum 0.005%
Hexachloridisiloxane	Maximum 5 P.P.M. <u>as Si</u>
K. I. Reactable	<u>Typical</u> 0.30%
Boiling Range (0-95%)	40°C

Know all Men by these Presents, That I, Harry A. Hachmeister, married

_____ the Grantor.

for the consideration of Ten Dollars and Other Valuable Considerations _____ Dollars,
(\$ 10.00 etc.) received to our full satisfaction of Stauffer Chemical Co., a corporation,
380 Madison Avenue, New York 17, N. Y..

_____, the Grantee do give, grant, bargain,
sell and convey unto the said Grantee, its successors and assigns, the following described premises, sit-
uated in the Township _____ of _____ Ashtabula _____ County of _____ Ashtabula _____
and State of Ohio:

Known as being part of Lot Number Two (2) in the Holmes Tract in said Township, and bounded and described as follows: Commencing in the center of State Road at the intersection of the Middle Road, so-called; thence east along the center of the Middle Road to the New York Central Railroad; thence north, on the west line of the lands of the New York Central Railroad Company to lands now or formerly owned by J. E. Liebman; thence west, on the south line of said Liebman land, to the center of State Road; thence south along the center of State Road to the place of beginning, and containing approximately 33.91 acres of land, but excepting therefrom lands conveyed by deed recorded in Volume 376, Page 467, Ashtabula County Records of Deeds.

And being last conveyed by deed from Eva Magee (widow) to Harry A. Hachmeister, dated February 24, 1953 recorded in Volume 488, Page 533.



be the same more or less, but subject to all legal highways.

TO HAVE AND TO HOLD the above granted and bargained premises, with the appurtenances thereof, unto the said Grantee, its successors and assigns forever. And I The said Grantor do for myself and my heirs, executors and administrators, covenant with the said Grantee, its successors and assigns, that at and until the enrolling of these presents, I was well seized of the above described premises, as a good and indefeasible estate in FEE SIMPLE, and have good right to bargain and sell the same in manner and form as above written, and that the same are free from all incumbrances whatsoever, except taxes both regular and special, if any, to be pro-rated between grantor and grantee as of date of transfer of deed, and except easements, if any, and except restrictions and zoning ordinances which may have been imposed thereon, if any,

and that I will WARRANT AND DEFEND said premises, with the appurtenances thereunto belonging, to the said Grantee, its successors and assigns, against all lawful claims and demands whatsoever, except as above stated.

And for valuable consideration I, Margaret R. Hachmeister, wife of Harry A. Hachmeister,

do hereby remise, release and forever quit-claim unto the said Grantee, its successors and assigns, all my right and expectancy of dower in the above described premises.

In Witness Whereof, we have hereunto set our hand s, the 27th day of

October, in the year of our Lord one thousand nine hundred and Fifty-Six.

Signed and acknowledged in the presence of

Gertrude L. Bronchain
William M. Hachmeister

Harry A. Hachmeister
(Harry A. Hachmeister)
Margaret R. Hachmeister
(Margaret R. Hachmeister)

PENNSYLVANIA
STATE OF OHIO

Allegheny County,

On this 27th day of October, 1956, before me,

Gertrude L. Bronchain
in and for said County and State personally

appeared the above named Harry A. Hachmeister and Margaret R. Hachmeister, husband and wife, and acknowledged the foregoing deed to be their act and deed and desired the same to be recorded as such.

Witness my hand and seal the day and year aforesaid.

~~who acknowledged that he or she did sign the foregoing instrument and that the same was his or her act and deed~~

~~In testimony whereof, I have hereunto set my hand and seal~~
~~THIS DEED WAS RECORDED IN THE OFFICE OF THE CLERK OF THE COMMONS OF THE COUNTY OF ALLEGHENY, PENNSYLVANIA, ON THE 27TH DAY OF OCTOBER, 1956.~~

~~ATTEST:~~

Gertrude L. Bronchain
Notary Public

My commission expires 3/10/57

Gertrude L. Bronchain, Notary Public
Pittsburgh, Allegheny County, Pa.
My Commission Expires
March 10, 1959

THIS DEED WAS
PREPARED BY
J. W. SIMMONS
Attorney At Law
GENEVA, OHIO

Know all Men by these Presents:

That The State Metals & Steel Company, Inc.,

a Corporation incorporated under the laws of the State of Ohio the Grantor,
who claim title by or through instrument, recorded in Volume 550, Page 20, County
Recorder's Office, for the consideration of Ten and 00/100 - - - - - Dollars
(\$ 10.00) received to its full satisfaction of

Stauffer Chemical Company, a Delaware Corporation, the Grantee,
whose TAX MAILING ADDRESS will be 380 Madison Ave., New York, N. Y.

do give, grant, bargain, sell and convey unto the said Grantee, its successors
~~and assigns~~ and assigns, the fol-
lowing described premises situated in Township of Ashtabula

County of Ashtabula and State of Ohio:

Being known as part of the Holmes Tract in the Township of Ashtabula,
County of Ashtabula and State of Ohio, and being further described as
follows:

Commencing at an iron pin in the westerly line of the right of way of
the New York Central Railroad, said pin being 308.24 feet north of
the center line of Middle Road as measured along the said westerly
line of the right of way of the New York Central Railroad; thence
running N. 0° 18' 15" W. along said right of way, 111.76 feet to a
concrete monument; thence running S. 89° 27' W., along a southerly
line of lands of the New York Central Railroad, 15 feet to a concrete
monument; thence running S. 11° 40' 45" W. a distance of 409.28 feet
to an iron pin in the northerly line of Middle Road; thence in the
same course 20.46 feet to a point in the center line of said Middle
Road; thence running N. 89° 27' E. along the center line of Middle
Road, 12.76 feet to a point; thence running N. 25° 25' 45" E., 22.25
feet to an iron pin in the northerly line of Middle Road; thence in
the same course, 102.75 feet to an iron pin; thence running N. 14°
22' 45" E. 100 feet to an iron pin; thence running N. 6° 30' 45" E.
100 feet to the place of beginning, and containing 14,844.18 square
feet or 0.341 acre of land, be the same more or less but subject to
legal highways.

The bearings used in the foregoing are to show correct angular rela-
tionship between lines only, and are therefore not necessarily true
azimuth nor are they meant to coincide with any previous description
of adjoining land except in angular relationship only.



(7)

33-02-102

be the same more or less, but subject to all legal highways. To have and to hold the above granted and bargained premises, with the appurtenances thereunto belonging, unto the said grantee, its successors and assigns forever. And the said grantor does for itself and its successors and assigns covenant with said grantee, its successors and assigns, that at and until the enrolling of these presents it is well seized of the above described premises as a good and indefeasible estate in fee simple, and has good right to bargain and sell the same in manner and form as above written; that the same are free and clear from all incumbrances whatsoever, except current taxes and assessments, if any, which shall be prorated between the Grantor and the Grantee, and which the Grantee shall hereafter pay,

and that it will warrant and defend said premises, with the appurtenances thereunto belonging, to the said grantee, its successors and assigns, forever, against all lawful claims and demands whatsoever.

In witness whereof said corporation sets its hand and corporate seal,
by Joseph Kline, its President
and Maurice Kline, its Secretary
this 15th day of October A. D. 1957.

The State Metals & Steel Company, Inc.

Signed and acknowledged in the presence of

Maurice Kline
Alex Magarakan

By Joseph Kline President
Maurice Kline Secretary

THE STATE OF OHIO

Stark County

Before me, a Notary Public in and for said County, personally appeared the above named

The State Metals & Steel Company, Inc.

by Joseph Kline, its President
and Maurice Kline, its Secretary

who acknowledged that they did sign the foregoing instrument and that the same is the free act and deed of said corporation and the free act and deed of each of them, personally and as such officers.

In testimony whereof I have hereunto set my hand and official seal, at Canton this 15th day of October 1957

Barbara E. Brady Notary Public

This instrument was prepared by
SAMUEL KRUGLIAK
918 Reankert Bldg.
Canton 2, Ohio

EARLEEN E. BRADY
Notary Public, Stark County, Ohio
My Commission Expires Aug. 1960



WARRANTY DEED

Pay 19.50 FROM
The State Metals & Steel Company, Inc.

TO
Stuffer Chemical Company
Bellevue Corporation

RECEIVED FOR RECORD
OCT 28 1957

at 10:45 o'clock A.M.

Recorded Oct 29, 1957
in Ashland County Records

Volume 558, Page 265
A. H. Fortuna, RECORDER

Fee \$1.00 NOTED FOR TRANSFER

TRANSFERRED
OCT 28 1957
Auditor, Ashland County, Ohio
Harry W. Phelps

VINCENT L. FOR

THIS AGREEMENT dated as of the 1st day of March, 1958 between STAUFFER CHEMICAL COMPANY, a Delaware corporation with offices at 380 Madison Avenue, New York, New York (hereinafter called "Stauffer"), and NATIONAL DISTILLERS AND CHEMICAL CORPORATION, a Virginia corporation with offices at 99 Park Avenue, New York, New York (hereinafter called "National"),

W I T N E S S E T H:

WHEREAS, Stauffer has constructed a plant designed for the production of titanium tetrachloride at Ashtabula, Ohio which is not yet in operation; and

WHEREAS, National desires to lease said plant and subject to start up experience has made known its desire to purchase the plant; and

WHEREAS, Stauffer is willing to lease said plant to National and to grant to National an option to purchase the plant, all subject to the provisions hereinafter set forth;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and conditions herein contained, it is agreed as follows:

1. Stauffer does hereby demise and let unto National, all those certain lots or parcels of land with the buildings and improvements thereon erected and the appurtenances thereunto located in the vicinity of the City of Ashtabula, in the County of Ashtabula and State of Ohio, (bounded and described in Schedule A attached hereto), and does further let unto National the machinery,

equipment and other personal property installed therein and used in connection therewith (listed and described in Schedule B attached hereto) (said property described in Schedules A and B being hereinafter collectively referred to as the "Plant"),

TO HAVE AND TO HOLD the Plant unto National for and during the full term of five (5) months commencing at 12:00 o'clock Noon on the 1st day of March, 1958 and ending at 12:00 o'clock Noon on the 31st day of July, 1958, except as otherwise provided in Paragraph 4 below.

2. For and in consideration of the leasing aforesaid, National hereby covenants and agrees to and with Stauffer to pay Stauffer as rental the sum of \$50,000 per month payable in advance on the first day of each month during the term hereof. X

3. National will use its best efforts to start up the Plant expeditiously and to satisfy itself that the Plant is capable of producing titanium tetrachloride in quantities, at costs and meeting specifications as set forth in Schedule C. Such start up shall be under the sole control and direction of National, shall be conducted with National's own personnel, and at National's own expense, but Stauffer agrees to furnish National with such technical assistance and advice as National may from time to time reasonably require and request, and National agrees to pay Stauffer therefor the direct salaries of Stauffer's personnel reasonably required to render such technical assistance and advice together with a sum of money to cover Stauffer's overhead equal to 75% of such direct salaries, plus all other out of pocket expenses incurred by Stauffer in connection with rendering X

such technical assistance and advice.

4. This lease shall terminate either (a) upon the expiration of the term hereof as provided in Paragraph 1 above, or (b) on any date prior to such expiration at National's sole option upon ten (10) days' notice in writing to Stauffer. Upon termination of the lease National shall surrender the Plant back to Stauffer in the same condition in which it was received, subject only to start up adjustments and to normal wear and tear, and Stauffer shall either (a) reimburse National for its costs not exceeding \$150,000, incurred in the start-up of the Plant, plus the costs of capital additions and replacement permitted under Paragraph 7, or (b) give National full credit for a similar amount against the payments to be made by National to Stauffer pursuant to a certain contract dated May 1, 1957 between National and Stauffer for the sale and purchase of titanium tetrachloride (the "Titanium Tetrachloride Contract") until such credit is exhausted. In such event the parties agree that the payments due by National to Stauffer pursuant to the Titanium Tetrachloride Contract shall be considered due as of the first day of the month following the month in which the Plant is capable of producing and delivering titanium tetrachloride in accordance with the terms of the Titanium Tetrachloride Contract, whether such date shall have occurred during the term of this lease or after the termination of this lease. National shall be given full credit for rental paid hereunder against the monthly payments due to Stauffer under the Titanium Tetrachloride Contract. In the event that at the termination of this lease the Plant is not capable of producing and

delivering titanium tetrachloride in accordance with the terms of the Titanium Tetrachloride Contract, Stauffer shall use its best efforts to cure the situation at its own expense and shall have up to six (6) months in which to do so, and during so much of said six (6) months period as is required by Stauffer to cure the situation, National agrees to waive all defaults by Stauffer under the Titanium Tetrachloride Contract. The parties agree that the effective date of the Titanium Tetrachloride Contract shall be the first day of the month following the month in which the Plant is capable of making deliveries thereunder, and the termination date shall be extended by the number of months by which the original effective date of March 1, 1958 is delayed.

5. Stauffer shall be under no obligation to furnish services of any nature whatsoever to the demised premises and/or to National, except technical services required in the start up of the Plant as set forth above.

6. National is hereby granted an option to purchase the Plant for the sum of \$ 4,945,000.00 . Such option is exercisable on July 31, 1958 only, by giving notice in writing thereof to Stauffer in which notice National shall designate the closing date which shall not be later than August 20, 1958. The option price shall be increased by the sum of \$ 400.00 per day for each day which shall elapse between July 31, 1958 and the day of the actual closing. National shall receive full credit against the option price for all rentals paid hereunder. National shall

be entitled to remain in possession of the Plant until the closing day.

7. During the term of this lease, National shall be entitled to make such capital additions and replacements to the Plant as are reasonably necessary for start-up of the Plant, but shall not make any capital addition or replacement costing more than \$5,000 nor total capital additions and replacements costing more than \$150,000 without the advance approval of Stauffer. Approval of a particular capital addition or replacement in excess of \$5,000 shall not in itself operate to increase said limitation on total capital additions and replacements.

8. In the event National elects to exercise its option to purchase the Plant, Stauffer agrees that on the closing date Stauffer will sell, transfer and deliver to National all of the real property described in Schedule A with the appurtenances thereunto, and the personal property described in Schedule B, and National shall pay to Stauffer the consideration therefor, and the closing shall proceed in the following manner:

(a) Stauffer will deliver to National such bargain and sale deeds as in the opinion of National's counsel shall be effective to vest in National good and marketable title to the real property described in Schedule A hereto free from all liens and subject only to such covenants, restrictions, easements or other similar encumbrances of record, if any, as shall not prohibit or restrict the maintenance of the buildings erected thereon or the use

thereof as a titanium tetrachloride plant and to any state of facts a physical inspection of the premises may disclose.

(b) Stauffer will deliver to National such bills of sale with covenants of warranty, endorsements, assignments and other good and sufficient instruments of transfer and covenants as in the opinion of National's counsel shall be effective to vest in National good and marketable title to the personal property set forth in Schedule B hereto free from all liens.

(c) National will deliver to Stauffer a certified or bank cashiers check or checks on New York Clearing House funds for a total of the option price increased as in Paragraph 6 provided.

(d) National will pay all sales, transfer and documentary taxes, if any, payable in connection with the sale, conveyances, assignments, transfers and deliveries to be made to National hereunder.

(e) Any unpaid assessments shall be assumed by National.

(f) From time to time at National's request (whether at or after the closing and without further consideration) Stauffer, at National's expense, will execute and deliver such further instruments of conveyance and transfer and take such other action as National may request more effectively to convey and transfer to National any of the property, real or personal, to be transferred hereunder.

9. In the event that Stauffer shall be unable to convey

title to the Plant in accordance with the terms and conditions set forth herein, National shall, at its election, have the right to accept such title as Stauffer is able to convey, or after affording Stauffer a reasonable adjournment of the closing date to enable it to cure or correct any defects or objections, and such defects or objections not having been cured or corrected, National may rescind this agreement by written notice to Stauffer, and upon such rescission Stauffer shall either (a) reimburse National for National's costs incurred in the start up of the Plant, or (b) give National full credit for a similar amount against the payments to be made by National to Stauffer pursuant to the Titanium Tetrachloride Contract until such credit is exhausted, all in the same manner as set forth in Paragraph 4 above, and thereupon this agreement shall be null and void and of no further force and effect. In the event of a rescission of the agreement by National pursuant to the provisions of this paragraph, the parties agree that the payments due by National to Stauffer pursuant to the Titanium Tetrachloride Contract shall be determined in the same manner as set forth in Paragraph 4 above.

10. Stauffer represents and warrants as follows:

(a) The execution and delivery of this lease to National and the purchase option included herein have been duly authorized by Stauffer's board of directors, and Stauffer will deliver to National at National's request true and complete copies of the minutes of the meeting of the board of directors at which such authority was granted, such copies having been certified by Stauffer's Secretary, and no further corporate action is necessary.

(b) Stauffer has good and marketable title to all of the property, real and personal, to be sold hereunder, subject to no mortgage, pledge, lien or conditional sale agreement.

11. If pursuant to any of the provisions contained in this agreement Stauffer must either reimburse National or give National credit for National's start up costs of the Plant or other charges or expense, National agrees to furnish Stauffer with a detailed statement of such start up costs and other charges or expenses certified by an officer of National.

12. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered or mailed by prepaid registered mail return receipt requested (a) if to Stauffer at 380 Madison Avenue, New York, New York, or (b) if to National at 99 Park Avenue, New York, New York. Either party may at any time designate another address by giving notice thereof in writing.

13. This agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors. Neither party shall have the right to assign this agreement without the written consent of the other, except that National may assign this agreement without the consent of Stauffer to Mallory-Sharon Metals Corporation or to any controlled subsidiary of National.

IN WITNESS WHEREOF, the parties hereto have caused these

presents to be executed by their duly authorized officers and
their corporate seals to be hereunto affixed, the day and year
first above written.

STAUFFER CHEMICAL COMPANY

By *A. E. Allinger*
Vice President

ATTEST:

A. Macdonald
Assistant Secretary

NATIONAL DISTILLERS AND CHEMICAL
CORPORATION

By *Ray J. J. J.*

ATTEST:

Paul Carson
Secretary

SCHEDULE A

Those two parcels of land lying, being and situate in the Township of Ashtabula, County of Ashtabula and State of Ohio, bounded and described as follows:

Parcel I

Commencing in the center of State Road at the intersection of the Middle Road, so-called; thence east along the center of the Middle Road to the New York Central Railroad; thence north, on the west line of the lands of the New York Central Railroad Company to lands now or formerly owned by J. H. Liebman; thence west, on the south line of said Liebman land, to the center of State Road; thence south along the center of State Road to the place of beginning, and containing approximately 33.91 acres of land, but excepting therefrom lands conveyed by deed recorded in Volume 376, Page 467, Ashtabula County Records of Deeds.

Being also known as part of Lot Number Two (2) in the Holmes Tract in said Township.

Parcel II

Commencing at an iron pin in the westerly line of the right-of-way of the New York Central Railroad, said pin being 308.24' north of the center line of Middle Road as measured along the said westerly line of the right-of-way of the New York Central Railroad; thence running N.0°18'15"W. along said right-of-way, 111.76' to a concrete monument; thence running S.89°27'W., along a southerly line of land of the New York Central Railroad, 15' to a concrete monument; thence running S.11°40'45"W. a distance of 409.28' to an iron pin in the northerly line of Middle Road; thence in the same course 20.46' to a point in the center line of said Middle Road; thence running N.89°27'E. along the center line of Middle Road, 12.76' to a point; thence running N.25°25'45"E., 22.25' to an iron pin in the northerly line of Middle Road; thence in the same course, 102.75' to an iron pin; thence running N.14°22'45"E. 100' to an iron pin; thence running N.6°30'45"E. 100' to the place of beginning, and containing 14,844.18 square feet or 0.341 acre of land, be the same more or less but subject to legal highways.

Being also known as part of the Holmes Tract in said Township.

The bearings used in the foregoing are to show correct angular relationship between lines only, and are therefore not necessarily true azimuth nor are they meant to coincide with any previous description of adjoining land except in angular relationship only.

Parcels I and II above are meant to describe all of the real property owned by Stauffer at Ashtabula, Ohio.

SCHEDULE B

Schedule B is intended to include all furniture, fixtures, vehicles, tools, spare parts, machinery, equipment and apparatus located in, on or about the Plant and used in connection with the operation of the Plant, including but not necessarily limited to, the items shown on the Vessel Equipment List (7 pages), the Pump Equipment List (2 pages), the Motors Equipment List (5 pages), the Exchangers Equipment List (2 pages) and the Miscellaneous Equipment List (5 pages) attached hereto.

AGE CO. • LIBRARY • FIVE • PHOTOCOPY AREA

M-A1	2016-9	10/19/16	10	1100	1100
M-A2	2016-9	10/19/16	10	1100	1100
M-A20	2016-7	10/19/16	11/2	1100	1100
M-A21	2016-7	10/19/16	11/2	1100	1100
M-A22	2016-7	10/19/16	11/2	1100	1100
M-A23	2016-9	10/19/16	11	1100	1100
M-A24	2016-9	10/19/16	10	1100	1100
M-A25	2016-9	10/19/16	11	1100	1100
M-A26	2016-9	10/19/16	11	1100	1100
M-A27	2016-9	10/19/16	11	1100	1100
M-A28	2016-9	10/19/16	11	1100	1100
M-A29	2016-9	10/19/16	11	1100	1100
M-A30	2016-9	10/19/16	11	1100	1100
M-A31	2016-9	10/19/16	11	1100	1100
M-A32	2016-9	10/19/16	11	1100	1100
M-A33	2016-9	10/19/16	11	1100	1100
M-A34	2016-9	10/19/16	11	1100	1100
M-A35	2016-9	10/19/16	11	1100	1100
M-A36	2016-9	10/19/16	11	1100	1100
M-A37	2016-9	10/19/16	11	1100	1100
M-A38	2016-9	10/19/16	11	1100	1100
M-A39	2016-9	10/19/16	11	1100	1100
M-A40	2016-9	10/19/16	11	1100	1100
M-A41	2016-9	10/19/16	11	1100	1100
M-A42	2016-9	10/19/16	11	1100	1100
M-A43	2016-9	10/19/16	11	1100	1100
M-A44	2016-9	10/19/16	11	1100	1100
M-A45	2016-9	10/19/16	11	1100	1100
M-A46	2016-9	10/19/16	11	1100	1100
M-A47	2016-9	10/19/16	11	1100	1100
M-A48	2016-9	10/19/16	11	1100	1100
M-A49	2016-9	10/19/16	11	1100	1100
M-A50	2016-9	10/19/16	11	1100	1100
M-A51	2016-9	10/19/16	11	1100	1100
M-A52	2016-9	10/19/16	11	1100	1100
M-A53	2016-9	10/19/16	11	1100	1100
M-A54	2016-9	10/19/16	11	1100	1100
M-A55	2016-9	10/19/16	11	1100	1100
M-A56	2016-9	10/19/16	11	1100	1100
M-A57	2016-9	10/19/16	11	1100	1100
M-A58	2016-9	10/19/16	11	1100	1100
M-A59	2016-9	10/19/16	11	1100	1100
M-A60	2016-9	10/19/16	11	1100	1100
M-A61	2016-9	10/19/16	11	1100	1100
M-A62	2016-9	10/19/16	11	1100	1100
M-A63	2016-9	10/19/16	11	1100	1100
M-A64	2016-9	10/19/16	11	1100	1100
M-A65	2016-9	10/19/16	11	1100	1100
M-A66	2016-9	10/19/16	11	1100	1100
M-A67	2016-9	10/19/16	11	1100	1100
M-A68	2016-9	10/19/16	11	1100	1100
M-A69	2016-9	10/19/16	11	1100	1100
M-A70	2016-9	10/19/16	11	1100	1100
M-A71	2016-9	10/19/16	11	1100	1100
M-A72	2016-9	10/19/16	11	1100	1100
M-A73	2016-9	10/19/16	11	1100	1100
M-A74	2016-9	10/19/16	11	1100	1100
M-A75	2016-9	10/19/16	11	1100	1100
M-A76	2016-9	10/19/16	11	1100	1100
M-A77	2016-9	10/19/16	11	1100	1100
M-A78	2016-9	10/19/16	11	1100	1100
M-A79	2016-9	10/19/16	11	1100	1100
M-A80	2016-9	10/19/16	11	1100	1100
M-A81	2016-9	10/19/16	11	1100	1100
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M-A89	2016-9	10/19/16	11	1100	1100
M-A90	2016-9	10/19/16	11	1100	1100
M-A91	2016-9	10/19/16	11	1100	1100
M-A92	2016-9	10/19/16	11	1100	1100
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M-A94	2016-9	10/19/16	11	1100	1100
M-A95	2016-9	10/19/16	11	1100	1100
M-A96	2016-9	10/19/16	11	1100	1100
M-A97	2016-9	10/19/16	11	1100	1100
M-A98	2016-9	10/19/16	11	1100	1100
M-A99	2016-9	10/19/16	11	1100	1100
M-A100	2016-9	10/19/16	11	1100	1100

SHEET 1 OF 5 SHEETS

STAUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT
UNION, N.Y.

STANDARD DETAIL NO. STD 5-30

TITLE EQUIPMENT LIST MOTORS

ISSUE	DATE	CHECKED	DATE
5	10/11		4-6-9
6	10/11		4-25-51
7	10/11		5-6-51
8	10/11		7-8-51

TAG#	PO#	SERVICE	HP	RATING	RPM	AREA
M-BL1	2016-2017	STAY IN BLOW	30		1800	
M-BL2	2017-6		50		1800	
M-BL3	2092	EX. COLLIER 1/2	110 1/2			
M-BL4	2092		110 1/2			
M-BL5	2017-20	MOTOR, COMPRESSOR	1			
M-BL6	2017-20	PRESSURE	1			
M-BL7	1199	BOILER SECTION	3/4			
M-BL8	1199	HEAVY SECT	3/4			
M-BL9	2017-20		1			
M-BL10	2016	VENT FAN	1		1800	
M-BL11	2016-17	VENT FAN - UNLUBRICATED	2		1140	
M-BL12	2016-17	VENT FAN - SPOOS	1			
M-BL13	2016-17	VENT FAN - SPOOS	1			
M-BL14	2016-17	VENT FAN - SPOOS	1			
M-BL15	2016-17	VENT FAN - SPOOS	1			
M-BL16	2016-17	VENT FAN - SPOOS	1			
M-BL17	2016-17	VENT FAN - SPOOS	1			
M-BL18	2016-17	VENT FAN - SPOOS	1			
M-BL19	2016-17	VENT FAN - SPOOS	1			
M-BL20	2016-17	VENT FAN - SPOOS	1			
M-BL21	2016-17	VENT FAN - SPOOS	1			
M-BL22	2016-17	VENT FAN - SPOOS	1			
M-BL23	2016-17	VENT FAN - SPOOS	1			
M-BL24	2016-17	VENT FAN - SPOOS	1			
M-BL25	2016-17	VENT FAN - SPOOS	1			
M-BL26	2016-17	VENT FAN - SPOOS	1			
M-BL27	2016-17	VENT FAN - SPOOS	1			
M-BL28	2016-17	VENT FAN - SPOOS	1			
M-BL29	2016-17	VENT FAN - SPOOS	1			
M-BL30	2016-17	VENT FAN - SPOOS	1			
M-BL31	2016-17	VENT FAN - SPOOS	1			
M-BL32	2016-17	VENT FAN - SPOOS	1			
M-BL33	2016-17	VENT FAN - SPOOS	1			
M-BL34	2016-17	VENT FAN - SPOOS	1			
M-BL35	2016-17	VENT FAN - SPOOS	1			
M-BL36	2016-17	VENT FAN - SPOOS	1			
M-BL37	2016-17	VENT FAN - SPOOS	1			
M-BL38	2016-17	VENT FAN - SPOOS	1			
M-BL39	2016-17	VENT FAN - SPOOS	1			
M-BL40	2016-17	VENT FAN - SPOOS	1			
M-BL41	2016-17	VENT FAN - SPOOS	1			
M-BL42	2016-17	VENT FAN - SPOOS	1			
M-BL43	2016-17	VENT FAN - SPOOS	1			
M-BL44	2016-17	VENT FAN - SPOOS	1			
M-BL45	2016-17	VENT FAN - SPOOS	1			
M-BL46	2016-17	VENT FAN - SPOOS	1			
M-BL47	2016-17	VENT FAN - SPOOS	1			
M-BL48	2016-17	VENT FAN - SPOOS	1			
M-BL49	2016-17	VENT FAN - SPOOS	1			
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M-BL56	2016-17	VENT FAN - SPOOS	1			
M-BL57	2016-17	VENT FAN - SPOOS	1			
M-BL58	2016-17	VENT FAN - SPOOS	1			
M-BL59	2016-17	VENT FAN - SPOOS	1			
M-BL60	2016-17	VENT FAN - SPOOS	1			
M-BL61	2016-17	VENT FAN - SPOOS	1			
M-BL62	2016-17	VENT FAN - SPOOS	1			
M-BL63	2016-17	VENT FAN - SPOOS	1			
M-BL64	2016-17	VENT FAN - SPOOS	1			
M-BL65	2016-17	VENT FAN - SPOOS	1			
M-BL66	2016-17	VENT FAN - SPOOS	1			
M-BL67	2016-17	VENT FAN - SPOOS	1			
M-BL68	2016-17	VENT FAN - SPOOS	1			
M-BL69	2016-17	VENT FAN - SPOOS	1			
M-BL70	2016-17	VENT FAN - SPOOS	1			
M-BL71	2016-17	VENT FAN - SPOOS	1			
M-BL72	2016-17	VENT FAN - SPOOS	1			
M-BL73	2016-17	VENT FAN - SPOOS	1			
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M-BL76	2016-17	VENT FAN - SPOOS	1			
M-BL77	2016-17	VENT FAN - SPOOS	1			
M-BL78	2016-17	VENT FAN - SPOOS	1			
M-BL79	2016-17	VENT FAN - SPOOS	1			
M-BL80	2016-17	VENT FAN - SPOOS	1			
M-BL81	2016-17	VENT FAN - SPOOS	1			
M-BL82	2016-17	VENT FAN - SPOOS	1			
M-BL83	2016-17	VENT FAN - SPOOS	1			
M-BL84	2016-17	VENT FAN - SPOOS	1			
M-BL85	2016-17	VENT FAN - SPOOS	1			
M-BL86	2016-17	VENT FAN - SPOOS	1			
M-BL87	2016-17	VENT FAN - SPOOS	1			
M-BL88	2016-17	VENT FAN - SPOOS	1			
M-BL89	2016-17	VENT FAN - SPOOS	1			
M-BL90	2016-17	VENT FAN - SPOOS	1			
M-BL91	2016-17	VENT FAN - SPOOS	1			
M-BL92	2016-17	VENT FAN - SPOOS	1			
M-BL93	2016-17	VENT FAN - SPOOS	1			
M-BL94	2016-17	VENT FAN - SPOOS	1			
M-BL95	2016-17	VENT FAN - SPOOS	1			
M-BL96	2016-17	VENT FAN - SPOOS	1			
M-BL97	2016-17	VENT FAN - SPOOS	1			
M-BL98	2016-17	VENT FAN - SPOOS	1			
M-BL99	2016-17	VENT FAN - SPOOS	1			
M-BL100	2016-17	VENT FAN - SPOOS	1			

JOB NO.				SHEET 2 OF 3 SHEETS			
1	4-1						
DATE	INITIAL	CHECKED	DATE	STAUFFER CHEMICAL CO., INC.			
5	LAN		9-25-7	ENGINEERING DEPARTMENT			
6	LAN		9-25-7	CHUCKY R. T.			
7	AM		9-25-7	STANDARD DETAIL NO. STD 5-20			
1	LAN		9-25-7	TITLE EQUIPMENT LIST - MOTORS			

TAG #	PO #	SERVICE	H.P.	ELECT. RATING	RPM	TYPE	AREA
M-CB-1	2006-8	NOTE: BEL-CE-1 TO CE-10	1		1160		YARD
M-CE-2		GELT 1000	7 1/2		1750		
M-CE-3		FR. 1000	7 1/2		1750		
M-CE-4			7 1/2		1750		
M-CE-5	2006-8	NOTE: GELT 1000			1750		YARD
M-CE-6	2006-8	NOTE: GELT 1000	70		1750		YARD
M-CE-7							
M-CE-8							
M-CE-9							
M-CE-10							
M-CE-11							
M-CE-12							
M-CE-13							
M-CE-14							
M-CE-15							
M-CE-16							
M-CE-17							
M-CE-18							
M-CE-19							
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M-CE-40							
M-CE-41							
M-CE-42							
M-CE-43							
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M-CE-45							
M-CE-46							
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M-CE-96							
M-CE-97							
M-CE-98							
M-CE-99							
M-CE-100							

JOB NO.				HP CONSUMED	SHEETS
4-1					3 OF 5 SHEETS
ISSUE	DRAWN	CHECKED	DATE	STAUFFER CHEMICAL CO. INC.	
5	LAN		4-2-57	ENGINEERING DEPARTMENT CHAUNCEY, N. Y.	
6	LAN		5-6-57	STANDARD DETAIL NO. STD. 5-30	
7	ADN		9-11-57	TITLE EQUIPMENT LIST - MOTORS	
4	LAN		7-8-57		

STAUFFER CHEMICAL CO., INC.
 ENGINEERING DEPARTMENT
 CHAUNCEY, N. Y.

STANDARD DETAIL NO. STD. 5-30

TITLE EQUIPMENT LIST - MOTORS

TAB. PG.

M-P50 2016-13 MOTOR PUMP 20
 M-P51 2016-13 PUMP 15
 M-P52 2016-13 PUMP 15
 M-P52B 2016-13 PUMP 15

M-P60 2016-10 MOTOR PUMP 25
 M-P62 2020 PUMP 14

M-P63 2016-2 PUMP 40
 M-P63A PUMP 40

M-P65A 2016-11 PUMP 15
 M-P65B 2016-11 PUMP 15

M-P67 2020 HEATER SET

M-P68 2020 "

MP 66 2171 ARCLAR FILL PUMP 3/4 5/6/20 1800

SPARE MOTORS

M-P65 2016-18 MOTOR PUMP, FDS K92 1/2
 M-P65A 2016-18 MOTOR PUMP, FDS K92 1/2
 M-P65B 2016-18 MOTOR PUMP, FDS K92 1/2

JOB NO.			
4-1			
ISSUE	DRAWN	CHECKED	DATE
5	LAN		4-25-57
6	LAN		5-6-57
7	AM		9-13-57
4	LAN		4-4-57

STAUFFER CHEMICAL CO., INC.
 ENGINEERING DEPARTMENT
 CHALCNEY, N. Y.

STANDARD DETAIL NO. STD. 5-30

TITLE EQUIPMENT

TRACING

2083 10/10/45

1150

1	2083	10/10/45	1150
2	2083	10/10/45	1150
3	2083	10/10/45	1150
4	2083	10/10/45	1150
5	2083	10/10/45	1150
6	2083	10/10/45	1150
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8	2083	10/10/45	1150
9	2083	10/10/45	1150
10	2083	10/10/45	1150
11	2083	10/10/45	1150
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13	2083	10/10/45	1150
14	2083	10/10/45	1150
15	2083	10/10/45	1150
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26	2083	10/10/45	1150
27	2083	10/10/45	1150
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51	2083	10/10/45	1150
52	2083	10/10/45	1150
53	2083	10/10/45	1150
54	2083	10/10/45	1150
55	2083	10/10/45	1150
56	2083	10/10/45	1150
57	2083	10/10/45	1150
58	2083	10/10/45	1150
59	2083	10/10/45	1150
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62	2083	10/10/45	1150
63	2083	10/10/45	1150
64	2083	10/10/45	1150
65	2083	10/10/45	1150
66	2083	10/10/45	1150
67	2083	10/10/45	1150
68	2083	10/10/45	1150
69	2083	10/10/45	1150
70	2083	10/10/45	1150
71	2083	10/10/45	1150
72	2083	10/10/45	1150
73	2083	10/10/45	1150
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78	2083	10/10/45	1150
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91	2083	10/10/45	1150
92	2083	10/10/45	1150
93	2083	10/10/45	1150
94	2083	10/10/45	1150
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96	2083	10/10/45	1150
97	2083	10/10/45	1150
98	2083	10/10/45	1150
99	2083	10/10/45	1150
100	2083	10/10/45	1150

STAUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT

STANDARD DETAIL NO. STD 5-50

TITLE EQUIPMENT - ST. MISCELLANEOUS

BL-1	2039	BLUEN-S		
FL-2	"	"	50	
BL-3	2092	BOILER TENTING	1/2	
PL-4	2092	"	1/2	
BL-6	2111	CEILING FAN		
BL-7	2179	CEILING FAN		
BL-8	2179	BOILER SECT.		
BL-9	2711	REFRIG. SECT.		
BL-10	2080	UTILITY AIR	30	SHOP NEAR
BL-11	2179	VENT FAN - UNLOADING		
BL-50	2031	BLOWER - AIR VENT	60	1st FLOOR
BL-50S	2031	S. F. FLOUNDER		
BL-51	2108	BLOWER - PEAK		
		ARMYPOST		
BL-60	2011	COMPRESSOR - AIR	40	UTILITY
BL-61	2211	"	40	
BL-62	2014	REFRIG.	175	
BL-63	2014	"	175	
BL-12	2766	WELDING FONE		
BL-13	2766	FAN SHOP		
BL-14	2800	" PAINT SHOP	1/6-110	40 PENS

JCE NO				SHEET 2 OF 5 SHEETS	
4-1					
ISSUE	DRAWN	CHECKED	DATE	STAUFFER CHEMICAL CO., INC. ENGINEERING DEPARTMENT CHAUNCEY, N. Y. STANDARD DETAIL NO. STD-5 TITLE EQUIPMENT NOT MISCELLANEOUS	
5	LAN		5-7-57		
6	AM		9-13-57		
3	R.R.		2-6-57		
4	R.R.		3-20-57		

McGraw-Hill
 1957
 100-100-100

TAG NO.	DWG NO.	SERVICE	SIZE	MOTOR H.P.	AREA
EJ-16	2826	EXP. ST. B-20-21-22			
EJ-17	2826	" B-21-22			
EJ-18	2826	" E-22-23			
EJ-19		" C-42-43			
EJ-20		" C-43-44			
EJ-21		" C-44-45			
EJ-22	2826	" T-42 DUCT			
EJ-23	2826	" T-43 DUCT			
EJ-24	2826	" T-44 DUCT			
EJ-25		INLET K-42			
26		" TO K-43			
27		" TO K-44			
28		BDR X-5-20			
29		" X-5-23			
30		" X-5-21			
31		" X-5-24			
32		" X-5-22			
33		" X-5-25			
EJ-24	2801	" X-3			
35	2801	" X-3			

JOB NO.
4-1

ISSUE	DRAWN	CHECKED	DATE
1	WLG		2-5-50
2	LHN		5-8-57
3	AM		9-18-57

SHEETS OF 5 SHEETS

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
NEW YORK, N. Y.

STANDARD DETAIL NO. STD. 5-5.0

TITLE EQUIPMENT LIST-MISCELLANEOUS

DATE: 08-09-67
TIME: 14:00

P-1 2040

DATE

P-4 2109

P-5 2109

P-20 2109 Pump

P-21 2109

P-205 2109

P-23 DELETED

P-24

P-26 109

P-27 2109

P-28 2109

P-40 2109 Pump

P-41 2109

P-42 2109

P-43 2109

4-1

5 LAR

6 AM

4 RR

HEAR CHEMICAL CO INC

JAGC 1100 SERVICE

P-120-2109 PUMP - PROCEEDS

P-120-2109

P-60 2093 (PUMP) - BOILER FEED

P-61 2079 -

P-62 2011 - TRIMMER

P-63 2019 - BRINE

P-64 2011 -

P-65 2011 - APERATOR

P-66 2013 - APERATOR

P-67 2011 - APERATOR

P-68 2020 - APERATOR

P-69 2020

JCB NO.

4-16

DATE

9-13-57

1-15-57

3-15-57

5-15-57

STAUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT

CHAUNCEY, N.Y.

STANDARD DETAIL NO. STD 5-20

TITLE EQUIPMENT LIST - PUMPS

SHEET 2 OF 2 SHEETS

ISSUE	DRAWN	CHECKED	DATE
5	LGN		5-25-57
6	AM		9-13-57
7	P.R.		2-5-57
4	R.R.		3-20-57

STUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
CHAUNCEY, N. Y.

STANDARD DETAIL NO. STD. 5-4-0

TITLE EQUIPMENT LIST - EXCHANGERS

JOB NO. 4-1 SHEET 2 OF 2 SHEETS

Item	Quantity	Unit	Value	Remarks
Oil Heater Set	1	Set	2020	X-64
Brine Cooler	1	Unit	2014	X-62
NH3 Condenser	1	Unit	2014	X-61
Brine Cooler	1	Unit	2011	X-60
Brine Cooler	1	Unit	2049	X-58
Process Sec. Brine Cooler	1	Unit	2044	X-57
Brine Cooler	1	Unit	2049	X-56
Brine Cooler	1	Unit	2049	X-55
Brine Cooler	1	Unit	2049	X-54
Brine Cooler	1	Unit	2049	X-53
Brine Cooler	1	Unit	2049	X-52
Brine Cooler	1	Unit	2049	X-51
Brine Cooler	1	Unit	2049	X-50

[Faint vertical markings or bleed-through from another page]

C-50 612 2053 240000 425000 360
C-51A 605 2083 700 35 300 114
C-51B 606 2093 100 35 300 114
C-52 603 2053 570 150 200 114
C-53 310 2051 100 35 300 114

STAUFFER CHEMICAL CO., INC.
ENGINEERING DEPARTMENT
CHAUNCEY, N. Y.
STANDARD DETAIL NO. STD. 540
TITLE VESSEL ELEMENT L.L.

4	LAN	5-8-57
3	R.R.	3-6-57
2	AEC	4-5-57
5	AM	9-13-57
1	JOE	10-1-57

STÄUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT
CHAMBERS, N. Y.

STANDARD DETAIL NO. STD-5-16


TITLE VES. EL. EQUIPMENT LIST

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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5-20-67	12	R.R.	5-20-67
5-20-67	12	R.R.	5-20-67

18-147-3-733-57

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Abstract

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1980

THE UNIVERSITY OF CHICAGO

Abstract

6. **CONCLUSIONS**

100-443887-100

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(continued)

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THE UNIVERSITY OF CHICAGO

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T-64 2100

STAUFEER CHEMICAL CO., INC.

STANDARD DETAIL NO

TITLE

TAG NO. DWS. F.O. #

SIZE

G

XS-20 600 2051 SERVED CINDER BLOCK

XS-21

4' x 8' x 16'

XS-22

4' x 8' x 16'

XS-23

4' x 8' x 16'

XS-24

4' x 8' x 16'

XS-25

4' x 8' x 16'

V-5D 29A 2108 VENTURI-PEASE
ANTHONY UNIT

Clay Perry

A

WB-1 222E 2036 S-59 WEIGH. BIN

2 1/2 CF

WB-2 222E "

2 1/2 CF

WB-3

ILMENITE

1 CF

WB-4 222D

COKE

5 CF

A

WB-20 42C 222E WEIGH. BIN R-20

WB-21

4-21 8' x 11' x 250 CF

WB-22

4-22 8' x 11' x 250 CF

J. E. 17.

4-1

3-27-57

ISSUE	DRAWN	CHECKED	DATE
5	AM		9-13-57
2	ARC		1-15-57
3	R.R.		57
4	L.A.N.		5-8-57

STAUFFER CHEMICAL CO., INC.

ENGINEERING DEPARTMENT
CHAUNCEY, N. Y.

STANDARD DETAIL NO.

STD 5-10

TITLE, EQUIPMENT

LIST

SCHEDULE C

I Quantities

The Plant is capable of producing titanium tetrachloride of a quality which shall meet the specifications outlined below at the rate of 4,000,000 pounds per month.

II Costs

A. Raw Materials

Rutile - not more than 0.458 pounds of contained TiO_2 per pound of $TiCl_4$.

Chlorine - not more than 0.85 pounds of contained Cl_2 per pound of $TiCl_4$

Coke - not more than 0.14 pounds of calcined petroleum coke per pound of $TiCl_4$.

B. Operating Costs

Plant operating costs other than raw materials, depreciation, real estate taxes, and insurance shall not exceed the sum of \$58,500.00 per month if the Plant is operated at a rate not in excess of 2,000,000 pounds per month and \$85,000.00 per month if the Plant is operated at a rate greater than 2,000,000 pounds per month.

III Specifications

Technical grade $TiCl_4$ produced from Rutile

Color	Yellow to Red
$TiCl_4$	Minimum 98%
$SiCl_4$	Maximum 0.20%
Vanadium	Maximum 0.20%
Non Volatile Residue	Maximum 0.05%
Iron as Fe	Maximum 0.005%
Hexachloridisiloxane	Maximum 5 P.P.M. <u>as Si</u>
K. I. Reactable	<u>Typical</u> 0.30%
Boiling Range (0-95%)	40°C

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